

Undescribed Species of Crane-Flies from the Western United States and Canada (Dipt.: Tipulidae). Part VIII

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The preceding part under this title was published in ENTOMOLOGICAL NEWS, 58: 61-67. Most of the species discussed herewith were taken by me in California and the types are preserved in my personal collection of these flies. One further species was found in the California Academy of Sciences and was loaned to me for study by Dr. E. S. Ross, curator of the insect collections.

Tipula (Oreomyza) sequoicola new species

Size small (wing, male, less than 10 mm.); general coloration light gray, the praescutum with four narrow reddish brown stripes; claws of male toothed; wings with a pale grayish tinge; no squamal setae; cell M_1 about three times the length of its petiole; male hypopygium with the ninth tergite entirely pale, its caudal margin with a deep and narrow median notch, the broad lateral lobes truncated; outer dististyle pale, the distal third narrowed; beak of inner dististyle slender, the retracted lower beak terminating in a rounded blackened knob; eighth sternite terminating in two separate groups of long reddish setae, the apical margin between produced into a long median lobe that is only a little shorter than the setae, its surface with abundant small hairs.

♂. Length about 8.5 mm.; wing 9.5 mm.

Frontal prolongation of head testaceous yellow; nasus distinct; palpi with basal segments obscure yellow, the outer ones brown. Antennae with the scape and pedicel yellow, flagellum brown; flagellar segments with the basal enlargements only feebly indicated; segments about equal in length to the verticils. Head light gray.

Pronotum and mesonotum light gray, the praescutum with four narrow reddish brown stripes, the intermediate pair separated by a space that is wider than either stripe; scutal lobes

variegated with reddish brown. Pleura and pleurotergite uniformly pale gray. Halteres with stem pale, knob darkened. Legs with all coxae pale gray; trochanters yellow; remainder of legs pale brown, the outer tarsal segments darker; tarsal claws (male) toothed. Wings with a pale grayish tinge, the short-oval stigma darker; obliterative areas inconspicuous or lacking; veins brown. Venation: *Rs* nearly twice *m-cu*; cell M_1 about three times its petiole; *m* oblique, the outer end of cell 1st M_2 pointed; M_{3+4} short, about three-fifths as long as the basal section of M_{1+2} ; *m-cu* close to the fork of *M*; cell 2nd *A* wide.

Abdomen testaceous yellow, unpatterned or virtually so. Male hypopygium with the tergite entirely pale, without ventral or marginal armature; posterior border with a deep and relatively narrow median notch, the broad lateral lobes truncate, provided with short scattered setae only. Ninth sternite with its appendage a subglobular lobe that is cushioned with coarse subspinous setae. Outer dististyle elongate, pale, the outer third narrowed, the lower margin and apex with relatively short setae, the dorsal portion with fewer long coarse bristles. Inner dististyle with the beak slender, the lower beak far retracted, at base of the former, terminating in a rounded black knob; dorsal crest with the corrugations widely spaced, the setae nearest the beak very small, becoming longer and coarser outwardly; posterior crest high but very pale to hyaline, the posterior corrugations more crowded; outer basal lobe short, more or less sclerotized, near apex with three or four setae that are stronger than the others. Eighth sternite near posterior margin with two separated groups of long reddish setae; near margin between these two groups an elongate median structure, appearing as a long tail-like pale lobe, the surface with abundant short hairs.

Habitat. CALIFORNIA. *Holotype*: ♂, Sequoia National Park, Giant Forest near Sunset Camp, altitude 7000 feet, July 18, 1946 (C. P. Alexander); in grove of Jeffrey Pine, *Pinus jeffreyi* Murray, resting on trunk of this species.

This small fly seems to be most nearly allied to *Tipula* (*Orcomyza*) *mandan* Alexander, despite the unproduced basistyle of

the male hypopygium. The elongate median appendage of the eighth sternite is distinctive.

***Limnophila (Elæophila) nupta* new species**

Mesonotal praescutum gray with four brown stripes; wings relatively narrow, faintly tinged with yellow, conspicuously patterned with brown, the areas restricted to the vicinity of the veins; *Sc* short, *Sc*₁ ending a short distance before the fork of *Rs*; abdomen bicolored; male hypopygium with the basistyle at apex provided with a brush of long yellow setae; outer dististyle entirely blackened, the spine of the outer margin strong, the outer third of style more narrowed, with six or seven spines before the strong apical point; phallosome on either side of the small aedeagus produced into a strong black spine.

♂. Length about 6.5 mm.; wing 7.4 mm.

Rostrum and palpi brownish black. Antennae with the basal segments black, the scape pruinose, flagellum paler; antennae of moderate length; verticils longer than the oval segments. Head gray; anterior vertex broad.

Pronotum gray. Mesonotal praescutum light gray, with four dark brown stripes that are separated by narrow gray lines; pseudosutural foveae black, conspicuous; posterior sclerites of notum somewhat darker gray, the scutum weakly patterned with darker. Pleura gray. Halteres with stem pale, knob dark brown. Legs with the coxae and trochanters yellow; femora yellow basally, broken at near midlength. Wings relatively narrow, faintly tinged with yellow, more saturated in the prearcular and basal costal fields; a conspicuous brown pattern, including about six larger costal areas, the second at origin of *Rs*, and the third at tip of *Sc* relatively close together and confluent in the costal cell; other dark areas over cord, outer end of cell 1st *M*₂, over the supernumerary crossvein in cell *M*, and at ends of the longitudinal veins, all dark areas being restricted to the vicinity of the veins; veins brown, slightly darker in the patterned areas, light yellow at the wing base. Venation: *Sc* short, *Sc*₁ ending a slight distance before the fork of *Rs*, *Sc*₂ about opposite two-thirds *Rs*, the latter angulated and long-spurred at origin; cell *M*₁ subequal to its petiole; cell 1st *M*₂ small with *m-cu* at about one-third its length.

Abdomen bicolored, the bases of the segments yellow, the narrower apices dark brown, the pale color clearer on the more proximal segments. Male hypopygium with the outer apical angle of basistyle slightly produced into a blackened obtuse lobe that bears a group of long yellow setae that are subequal in length to the outer dististyle. Outer dististyle entirely blackened, relatively narrow, the spine of the outer margin strong, placed at near two-thirds the length; outer third of style more narrowed, the apex a strong curved spine with about six or seven smaller teeth on margin back from this spine. Inner dististyle an oval pale lobe with abundant pale setae but with no modified brush or pencil. Phallosome on either side of the small aedeagus produced into a strong black spine that is about three-fourths as long as the aedeagus itself.

Habitat. CALIFORNIA. *Holotype:* ♂, Yosemite National Park, Bridalveil Creek, altitude 7075 feet, July 22, 1946 (C. P. Alexander).

The most similar species is *Limnophila* (*Elæophila*) *angustior* Alexander which agrees most closely in the shape and coloration of the wings and in the general structure of the male hypopygium, including the brush of setae at apex of the basistyle. It differs in all other details of the hypopygium, including the outer dististyle and the lack of the spines subtending the aedeagus.

Elephantomyia (Elephantomyia) curtirostris new species

Mesonotum yellow, the praescutum with three brown stripes; rostrum unusually short, only about two-fifths as long as the wing; antennae black; wings with a faint yellow tinge, restrictively patterned with brown, including very narrow seams over most of the veins; abdomen yellow, the tergites with a narrow pale brown central stripe, widened on the proximal two segments; sternites yellow, the lateral borders brownish black.

♀. Length, excluding rostrum, about 10.5 mm.; wing 10.5 mm.; rostrum 4 mm.

Rostrum unusually short, dark brown throughout, about two-fifths as long as the wing; palpi dark brown. Antennae with the scape black, sparsely pruinose; pedicel piceous brown; flagellum black; fusion-segment more than twice the length of the

succeeding segment. Head light gray; anterior vertex (female) narrow, about one-fourth greater than the diameter of the scape.

Pronotum obscure yellow. Mesonotal praescutum yellow, with three brown stripes, the median one broad and distinct, the laterals more diffuse; posterior interspaces obscured; centers of the scutal lobes and the mediotergite dark brown, the scutellum darkened medially, the remainder of mesonotum yellow. Pleura yellow, with a major brown area on the mesopleura. Halteres broken. Legs with the coxae and trochanters yellow; femora yellow, the tips dark brown, broadest on the fore pair where more than the outer half is included, narrowest on the posterior legs where about the outer tenth is included; tibiae obscure brownish yellow, the tips narrowly darkened; tarsi brownish yellow, the terminal two segments dark brown; tibial spurs present. Wings with a faint yellow tinge, restrictedly patterned with brown, including pale brown cells *C* and *Sc*, a long darker brown stigma, and very narrow but evident pale brown seams over most of the veins, lacking on *1st A*; veins brown. Venation: *Sc* relatively short, the strong *Sc*₂ ending a short distance before the outer end of *Rs*, the weak *Sc*₁ at its tip; branches of *Rs* extending generally parallel to one another, diverging slightly at their outer ends; *m-cu* at midlength of the lower face of cell *1st M*₂.

Abdomen yellow, the lateral borders of the sternites brownish black, more or less interrupted on the narrow basal rings of the segments; on the seventh sternite the posterior border is similarly darkened; tergites with a delicate pale brown median line, more extensive on segments one and two, on the latter more or less hour-glass shaped. Ovipositor with the valves, especially the cerci, elongate.

Habitat. ARIZONA. *Holotype:* ♀, Chiricahua Mountains, Cochise Co., Rustler Park, altitude 8500 feet, July 26, 1927 (J. A. Kutsche); California Academy of Sciences.

The present fly is very different from the other regional species, including the only other Nearctic species, the genotype, *Elephantomyia* (*Elephantomyia*) *westwoodi* Osten Sacken and rather numerous Mexican forms. From all of these it differs especially in the unusually short rostrum which is only about two-fifths as long as the wing.